Marked Up Version Showing Changes

1. (Thrice Amended)A smoking article including

a tobacco column;

a wrapper surrounding the tobacco column; and

[a carbon monoxide pump including] an adsorbent material for adsorbing carbon monoxide and subsequently releasing carbon monoxide [or a reaction product thereof], thereby creating a flux during an inter-puff period from the adsorbent material [separate from main stream combustion products], wherein the adsorbent material [carbon monoxide pump] is positioned proximate a smoker's mouthpiece end of the tobacco column [with respect to the tobacco column] so as to selectively divert carbon monoxide from main stream combustion products prior to inhaling by a smoker.

2.(Amended)The smoking article according to Claim 1, further including venting holes adjacent to the adsorbent material [carbon monoxide pump].

22.(Thrice Amended)A smoking article including:

a tobacco column;

a wrapper surrounding the tobacco column;

[a carbon monoxide pump] an adsorbent material for adsorbing carbon monoxide proximate a smoker's mouthpiece end of the tobacco column including a metal or metal compound including one of silver, nickel, dysprosium and combinations thereof

[:an adsorbent material for adsorbing carbon monoxide;

a catalyst for oxidizing carbon monoxide to carbon dioxide]; and

venting holes adjacent to the adsorbent material,

wherein the adsorbent material [carbon monoxide pump] selectively diverts carbon monoxide from main stream combustion products[, the catalyst at least partially oxidizes the carbon monoxide to carbon dioxide] and the venting holes provide an alternative path for the diverted carbon monoxide [and the oxidized carbon monoxide] desorbed from the adsorbent material during an inter-puff period to check inhalation by a smoker.

24.(Twice Amended)The smoking article according to Claim 22, wherein the metal compound is an oxide [catalyst is at least one of a transition metal, an oxide of a transition metal, and a transition metal and an oxide of a transition metal].

25.(Amended)The smoking article according to Claim [24] 22, wherein the metal of the metal or metal compound is silver [transition metal is a rare earth metal].

26.(Amended)The smoking article according to Claim [24] 25, wherein the silver is between about 4 and 10 percent of the adsorbent material [transition metal is a platinum group metal].

27.(Amended)The smoking article according to Claim [24] 22, wherein the metal or metal compound is a combination of nickel and dysprosium [transition metal is at least one of copper, cobalt, iron, silver, nickel, their alloys, their mixtures and combinations thereof].

31.(New Claim)The smoking article according to Claim 22, wherein the adsorbent material is a zeolite that is operable as the absorbent. [The smoking article according to Claim 21, wherein in the vicinity of the adsorbent the concentration of carbon monoxide is increased thereby increasing the flux of carbon monoxide from the adsorbent.]

34.(Twice Amended)The smoking article according to Claim 31, wherein the [adsorbent material is a] zeolite has an aperture size ranging from about 3 to 9 angstroms [that is operable as the absorbent].

46. (Thrice Amended)A mouthpiece for a smoking article comprising:

a fitting to receive a smoking article, and

[a carbon monoxide pump in the fitting including] an adsorbent material for adsorbing carbon monoxide, wherein the adsorbent material [carbon monoxide pump] is positioned with respect to the smoking article so as to selectively divert carbon monoxide from main stream combustion products prior to inhaling by a smoker by desorption from the adsorbent material during an inter-puff period through venting holes adjacent to the adsorbent material [from main stream combustion products prior to inhaling by a smoker].

47. (Thrice Amended)A mouthpiece for a smoking article comprising:

a fitting to receive a smoking article;

[a carbon monoxide pump] an adsorbent material in the fitting including:

[an adsorbent material for adsorbing carbon monoxide,

a catalyst for oxidizing carbon monoxide to carbon dioxide] a metal or metal compound including one of silver, nickel, dysprosium and combinations thereof; and

venting holes adjacent to the adsorbent material,

wherein the adsorbent material [carbon monoxide pump] selectively diverts carbon monoxide from main stream combustion products by adsorption to and desorption from the adsorbent material[, the catalyst at least partially oxidizes the carbon monoxide to carbon dioxide] and the venting holes provide an alternative path for the diverted carbon monoxide [and the oxidized carbon monoxide] to check inhalation by a smoker.

Please Add New Claims 48-63 as follow:

--48.(New Claim)The mouthpiece according to Claim 47, wherein the venting holes facilitate the further diversion of carbon monoxide from main stream smoke.--

--49.(New Claim)The mouthpiece according to Claim 47, wherein the metal compound is an oxide.--

--50.(New Claim)The mouthpiece according to Claim 47, wherein the metal of the metal or metal compound is silver. --

--51.(New Claim)The mouthpiece according to Claim 50, wherein the silver is between about 4 and 10 percent of the adsorbent material.--

--52.(New Claim)The mouthpiece according to Claim 47, wherein the metal or metal compound is a combination of nickel and dysprosium.--

--53.(New Claim)The mouthpiece according to Claim 47, further including at least one additional filter element proximate the smoker's mouthpiece end. --

--54.(New Claim)The mouthpiece according to Claim 53, wherein the additional filter element is cellulose acetate. --

--55.(New Claim)The mouthpiece according to Claim 47, wherein the absorbent material has the propensity that the adsorbing is momentary.--

--56.(New Claim)The mouthpiece according to Claim 55, wherein the adsorbing is between about 0.1 and about 10 seconds.--

--57.(New Claim)The mouthpiece according to Claim 47, wherein the adsorbent material is a zeolite that is operable as the absorbent.--

--58.(New Claim)The mouthpiece according to Claim 57, wherein the zeolite has an aperture size ranging from about 3 to 9 angstroms.--

--59.(New Claim)The mouthpiece according to Claim 47, wherein the adsorbent material is an oxide that is operable as the absorbent.--

--60.(New Claim)The mouthpiece according to Claim 59, wherein the oxide is an oxide of at least one of silicon, aluminum, magnesium, there mixtures and there compounds.--

--61.(New Claim)The mouthpiece according to Claim 60, wherein the oxide is a dehydrated oxide.--

--62.(New Claim)The mouthpiece according to Claim 61, wherein the dehydrated oxide is an oxide of aluminum.--

--63.(New Claim)The mouthpiece according to Claim 59, wherein the oxide is amorphous.--

Remarks

The Applicants first wish to thank the Examiner for the courtesy extended to Applicants' attorney during the Telephonic Interview on March 14, 2003.

The Office Action mailed December 17, 2002 has been carefully considered. After such consideration, Claims 4-21 have been canceled Claims 1, 2, 22, 24, 25, 26, 27, 31, 34, 46, and 47 have been amended and new Claims 31 and 48-63 have been added. Claims 1-3, 22-40, and 46-63 remain in the case with none of the claims yet being allowed.

The Office Action and Advisory Action reject Claims 1-3 under 35 U.S.C. 112, first paragraph. In rejecting Claims 1-3, the Office Action stated that the Claims contain subject matter that is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Office Action stated that "[t]he present disclosure does not support a flux from the adsorption material being separate from the mainstream combustion products." Further, the Action stated that "[a]t page 5 of the present disclosure, support is provided for the presence of a flux from the adsorption material but does not support said flux being separate from the main stream combustion products." Applicants respectfully disagree.

As noted during the telephonic interview, at least Figure 3 and the following passage convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention:

> In an alternative embodiment, having no catalyst, the carbon monoxide pump 16 includes an adsorbent material. In this embodiment, as the main stream smoke passes over the adsorbent material, carbon monoxide is adsorbed from the main stream smoke onto the adsorbent material. During the delay between the current puff and the successive puff, which may be called an inter-puff period, the concentration of carbon monoxide increases in gas phase within the adsorbent material due to its desorption. The higher concentration of the carbon monoxide in the vicinity of the adsorbent material creates a driving force that increases the flux of carbon monoxide from the adsorbent material so that it exits holes 18 proximate to the carbon monoxide pump 16. [Emphasis Added.] Page 5, lines 5-14

That is, both show that the flux from the adsorbing material is separate from the mainstream combustion products because the flux takes place during the inter-puff period when the combustion products are side stream smoke. Thus, the rejection of Claims 1-3 under 35 U.S.C. 112, first paragraph has been shown to be improper. The rejection having been shown to be improper should be withdrawn.

Also the Office Action rejected Claims 1-3, 22-30, 32-40, 46 and 47 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,317,460 (Dale *et al.*) of record in view of US Patent No. 4,301,816 (Wahle *et al.*). Applicants submit that the amendment of independent Claims 1, 22, 46, and 47 renders the rejection of Claims 1-3, 22-30, 32-40, 46 and 47 moot. Specifically, the rejection based on Dale *et al.* in view of Wahle *et al.* neither discloses nor suggests a smoking article including a tobacco column a wrapper surrounding the tobacco column and an adsorbent material for adsorbing carbon monoxide and subsequently releasing carbon monoxide, thereby creating a flux during an inter-puff period from the adsorbent material, wherein the adsorbent material is positioned proximate a smoker's mouthpiece end of the tobacco column so as to selectively divert carbon monoxide from main stream combustion products prior to inhaling by a smoker.

Further, the rejection based on Dale *et al.* in view of Wahle *et al.* neither discloses nor suggests a smoking article including a tobacco column, a wrapper surrounding the tobacco column, an adsorbent material for adsorbing carbon monoxide proximate a smoker's mouthpiece end of the tobacco column including a metal or metal compound including one of silver, nickel, dysprosium and combination thereof, and venting holes adjacent to the adsorbent material, wherein the adsorbent material selectively diverts carbon monoxide from main stream combustion products and the venting holes provide an alternative path for the diverted carbon monoxide desorbed from the adsorbent material during an inter-puff period to check inhalation by a smoker.

Dale *et al.* merely discloses catalysts for the low temperature oxidation of carbon monoxide to carbon dioxide, used in smoking product filters. The catalysts are carried upon a support that should be microporous. The catalysts may include mixtures of tin or tin compounds

with other catalytic material. The catalysts may involve a Redox mechanism. The catalysts exhibit resistance to deactivation caused by contact with water.

Wahle *et al.* discloses filter cigarettes with multiplex filter mouthpieces wherein at least one filtering element constitutes an unwrapped filter plug having a reinforced porous peripheral layer produced in a machine, which is equipped with a perforating device for tubular envelopes connecting the mouthpieces to the respective plain cigarettes, or with a device for making holes in the web of wrapping material which is subdivided into uniting bands. The holes are provided in those portions of tubular envelopes, which surrounds the reinforced porous peripheral layers. Filtering elements, which constitute unwrapped filter plugs may be disposed at the free ends of the mouthpieces or adjacent to the plain cigarettes.

The 35 U.S.C. 103(a) rejection of Claims 1-3, 22-30, 32-40, 46 and 47 being moot should be withdrawn.

Applicants have placed the case in condition for immediate allowance and such action directed to Claims 1-3, 22-40, and 46-63 is respectfully requested. However, if any issue remains unresolved, Applicants' attorney would welcome the opportunity for a telephone interview to expedite allowance and issue.

Respectfully submitted,

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